

Claims:

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1 1. A system for copy protecting information, the
2 system comprising:
3 a point of deployment module; and
4 a set-top box including;
5 wherein the set-top box transmits a request message
6 for information, the point of deployment module generates
7 a reply message which includes at least one control
8 information pair, relating to the information, each
9 control information pair having copy control information
10 and a stream identifier, respectively generating a first
11 in the point of deployment module and a second key in the
12 set-top box, using the at least one control information
13 pair, and the point of deployment module encrypting the
14 information with the first shared key and transmitting the
15 encrypted information to the set-top box, and the set-top
16 box decrypting the encrypted information with the second
17 shared key when the first and second shared keys match.

1 2. A method of copy protecting information
2 transmitted between a deployment module and a host device,
3 the method comprising the steps of:

4 (a) transmitting a request message for the
5 information from the host device to the deployment module;

6 (b) transmitting a reply message from the deployment
7 module to the host device, wherein the reply message
8 includes at least one control information pair, each pair
9 having a copy control information and a stream identifier;

10 (c) generating a first shared key at the host and a
11 second shared key at the deployment module, respectively,

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12 using the at least one control information pair and an
13 encryption means;
14 (d) encrypting, in the deployment module, the
15 information;
16 (e) transmitting the encrypted information from the
17 deployment module to the host;
18 (f) decrypting, at the host, the encrypted
19 information; and
20 (g) receiving the information at the host when the
21 first and second shared keys match.

1 3. The method of claim 2, wherein the deployment
2 module is a point of deployment module.

1 4. The method of claim 2, wherein the host is a set-
2 top box.

1 5. The method of claim 2, wherein the encryption
2 means includes a hash function.

1 6. The method of claim 2, wherein the encrypted
2 information in an elementary stream of information is
3 encrypted with the first shared key.

1 7. The method of claim 6, wherein the stream
2 identifier that is transmitted to the host is incorporated
3 with the Packetized Elementary Stream (PES) header of the
4 elementary stream.

1 8. A deployment module for use with a host device,
2 the deployment module comprising:

3 means for communicating with the host device; and
4 a processor for, in response to a request message for
5 information from the host device, generating a reply
6 message to the host device, the reply message including at
7 least one control information pair, each pair having copy
8 control information and a stream identifier, generating a
9 first shared key using the at least one control
10 information pair, encrypting the information with the
11 first shared key and transmitting the encrypted
12 information to the host device.

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1 9. The deployment module of claim 8, wherein the
2 deployment module is selected from the group consisting of
3 a point of deployment module, wireless data interface
4 appliance, smartcard, personal computer or internet
5 interface appliance.

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1 10. The deployment module of claim 9, wherein the
2 host device is a set-top box.

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1 11. The deployment module of claim 10, wherein the
2 encrypted information is transmitted to the host device
3 using a transport stream, wherein the transport stream
4 includes at least one elementary stream.

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1 12. The deployment module of claim 11, wherein
2 respective ones of the at least one control information
3 pairs is associated with respective ones of the at least
4 one elementary streams.

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1 13. A host device for use with a deployment module,

2 the host device comprising:
3 means for communicating with the deployment module;
4 and
5 a processor for generating a request message for
6 information to the deployment module, and in response,
7 receiving a reply message from the deployment module,
8 wherein the reply message includes at least one control
9 information pair, each pair having copy control
10 information and a stream identifier, generating a second
11 shared key using the at least one control information
12 pair, and decrypting encrypted information, received from
13 the deployment module, with the second shared key, and
14 receiving the information when the second shared key
15 matches a first shared key generated in the deployment
16 module.

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1 14. The host device of claim 13, wherein the
2 deployment module is selected from the group consisting of
3 a point of deployment module, wireless data interface
4 appliance, smartcard, personal computer or internet
5 interface appliance.

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1 15. The host device of claim 14, wherein the host
2 device is a set-top box.

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1 16. The host device of claim 13, wherein the received
2 encrypted information is included in a transport stream,
3 wherein the transport stream includes at least one
4 elementary stream.

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1 17. The deployment module of claim 16, wherein

